

Figure 1

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5' CAATCCGCTGGCTAAGTTCCTTAAATGCTGCTAAGAAATTCGCACTTTCATTAAATCAGAAAT

TTACTTITTCCTCTCTGGAGCTAAGATATTTACAGAGAAATTAACCTTTTTCCTTCGCACTTCAACATTTCTAGCAATAAGTC

Met	Gln	Ile	Glu	Leu	Ser	Thr	Cys	Thr	Thr	Leu	Cys	Leu	Leu	Arg	Phe	Cys	Phe	18
ATG	CAA	ATA	GAG	CTC	TCC	ACC	TGC	TTC	TTT	CTG	TGC	CIT	TTG	CGA	TTG	TGC	TTT	
Ser	Ala	Thr	Arg	Arg	Tyr	Tyr	Leu	Gly	Ala	Val	Glu	Leu	Ser	Trp	Asp	Tyr	Met	36
AGT	CCC	ACC	AGA	AGA	TAC	TAC	CTG	GGT	GCA	GTC	GAA	CTG	TCA	TGC	GAC	TAT	ATC	
Gln	Ser	Asp	Leu	Gly	Glu	Leu	Pro	Val	Asp	Ala	Arg	Phe	Pro	Pro	Arg	Val	Pro	54
CAA	AGT	GAT	CTC	GGT	CAG	CTG	CCT	CTG	GAC	GCA	ACA	TTT	CCT	CCT	AGA	CTG	CCA	
Lys	Ser	Phe	Pro	Phe	Asn	Thr	Ser	Val	Val	Tyr	Lys	Lys	Thr	Leu	Phe	Val	Glu	72
AAA	TCT	TTT	CCA	TTG	AAC	ACC	TCA	GTC	GTC	TAC	AAA	AAG	ACT	CTG	TTT	CTA	CAA	
Phe	Thr	Val	His	Leu	Phe	Asn	Ile	Ala	Lys	Pro	Arg	Pro	Pro	Trp	Met	Gly	Leu	90
TTG	ACC	GTT	CAC	CTT	TTG	AAC	ATC	GCT	AAC	CCA	AGG	GCA	CCC	TGG	ATG	GCT	CTG	
Leu	Gly	Pro	Thr	Ile	Gln	Ala	Glu	Val	Tyr	Asp	Thr	Val	Val	Ile	Thr	Leu	Lys	108
CTA	GGT	CCT	ACC	ATC	CAG	GCT	GAC	GTT	TAT	GAT	ACA	GTC	GTC	ATT	ACA	CTT	AAG	
Asn	Met	Ala	Ser	His	Pro	Val	Ser	Leu	Phe	Ala	Val	Gly	Val	Ser	Tyr	Trp	Lys	126
AAC	ATG	GCT	TCC	CAT	CCT	GTC	ACT	CTT	CAT	GCT	GTT	GCT	GTA	TCC	TAC	TGG	AAA	
Ala	Ser	Glu	Gly	Ala	Glu	Tyr	Asp	Asp	Gln	Thr	Ser	Gln	Arg	Glu	Lys	Glu	Asp	144
GCT	TCT	CAG	GGA	GCT	CAA	TAT	GAT	GAT	CAG	ACC	ACT	CAA	AGG	GAG	AAA	GAA	GAT	
Asp	Lys	Val	Phe	Pro	Gly	Gly	Ser	His	Thr	Tyr	Val	Trp	Gln	Val	Leu	Lys	Glu	162
G	AAA	GTC	TTG	CCT	GGT	GGA	ACC	CAT	ACA	TAT	GTC	TGG	CAG	GTC	CTG	AAA	CAG	
Leu	Gly	Pro	Met	Ala	Ser	Asp	Pro	Leu	Cys	Leu	Thr	Tyr	Ser	Tyr	Leu	Ser	His	180
TAT	GGT	CCA	ATC	CCC	TCT	GAC	CCA	CTG	TGC	CIT	ACC	TAC	TCA	TAT	CTT	TCT	CAT	
Val	Asp	Leu	Val	Lys	Asn	Leu	Asn	Ser	Gly	Leu	Ile	Gly	Ala	Leu	Leu	Val	Cys	198
TTC	GAC	CTG	GTA	AAA	CAC	TTG	AAT	TCA	GGC	GTC	ATT	GGA	GCC	CTA	CTA	GTA	TCT	
Arg	Glu	Gly	Ser	Leu	Ala	Lys	Glu	Lys	Thr	Gln	Thr	Leu	His	Lys	Phe	Ile	Leu	216
GGA	GAA	GGG	AGT	CTG	CCC	AAG	GAA	AAG	ACA	GAG	ACC	TTG	CAG	AAA	TTT	ATA	CTA	
Leu	Thr	Ala	Val	Phe	Asp	Glu	Gly	Lys	Ser	Trp	His	Ser	Glu	Thr	Lys	Asn	Ser	234
TTT	TTT	GCT	GTA	TTT	GAT	GAA	GGG	AAA	AGT	TGG	CAC	TCA	GAA	ACA	AAC	AAC	TCC	
Leu	Met	Gln	Asp	Arg	Asp	Ala	Ala	Ser	Ala	Arg	Ala	Trp	Pro	Lys	Met	His	Thr	252
TC	ATG	CAG	GAT	AGG	GAT	GCT	GCA	TCT	GCT	GGG	GCC	TGG	CCT	AAA	ATG	CAC	ACA	
Al	Asn	Gly	Tyr	Val	Asn	Arg	Ser	Leu	Pro	Gly	Leu	Ile	Gly	Cys	His	Arg	Lys	270
TC	AAT	GCT	TAT	GTA	AAC	AGG	TCT	CTG	GCA	GCT	CTG	ATT	GGA	TCC	CAC	AGG	AAA	
Ser	Val	Tyr	Trp	His	Val	Ile	Gly	Met	Gly	Thr	Thr	Pro	Glu	Val	His	Ser	Ile	288
CA	GTC	TAT	TGG	CAT	GTC	ATT	GCA	ATG	GCC	ACC	ACT	CCT	GAA	CTG	CAC	TCA	ATA	
Leu	Lue	Glu	Gly	His	Thr	Phe	Leu	Val	Arg	Asn	His	Arg	Gln	Ala	Ser	Leu	Glu	306
TC	CTC	CAA	GCT	CAC	ACA	TTT	CTT	CTG	AGG	AAT	CAT	GGG	CAC	GGG	TCC	TTG	GAA	

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Ile	Ser	Pro	Ile	Thr	Phe	Leu	Thr	Ala	Gln	Thr	Leu	Leu	Met	Asp	Leu	Gly	Gln	324
ATC	TCC	CCA	ATA	ACT	TTC	CTT	ACT	GCT	CAA	ACA	CTC	TTC	ATG	CAC	CTT	GGA	CAC	
Phe	Leu	Leu	Phe	Cys	His	Ile	Ser	Ser	His	Gln	His	Asp	Gly	Met	Glu	Ala	Tyr	342
TTT	CTA	CTC	TTT	TCT	CAT	ATC	TCT	TCC	CAC	CAA	CAT	GAT	GCC	ATG	GAA	GCT	TAT	
Val	Lys	Val	Asp	Ser	Cys	Pro	Glu	Glu	Pro	Gln	Leu	Arg	Met	Lys	Asn	Asn	Glu	360
GTC	AAA	GTA	CAC	AGC	TGT	CCA	GAG	GAA	CCC	CAA	CTA	CCA	AIC	AAA	AAT	AAT	GAA	
Glu	Ala	Glu	Asp	Tyr	Asp	Asp	Asp	Leu	Thr	Asp	Ser	Glu	Met	Asp	Val	Val	Arg	378
GAA	CCC	GAA	GAC	TAT	GAT	GAT	GAT	CTT	ACT	GAT	TCT	GAA	ATG	CAT	GTC	GTC	AGC	
Phe	Asp	Asp	Asp	Asn	Ser	Pro	Ser	Phe	Ile	Gln	Ile	Arg	Ser	Val	Ala	Lys	Lys	396
TTT	GAT	GAT	GAC	AAC	TCT	CCT	TCC	TTT	ATC	CAA	ATT	CCC	TCA	GTT	GCC	AAG	AAG	
His	Pro	Lys	Thr	Trp	Val	His	Tyr	Ile	Ala	Ala	Glu	Glu	Glu	Asp	Trp	Asp	Tyr	414
CAT	CCT	AAA	ACT	TGG	GTA	CAT	TAC	ATT	GCT	GCT	GAA	GAG	GAG	GAC	TGG	GAC	TAT	
Ala	Pro	Leu	Val	Leu	Ala	Pro	Asp	Asp	Arg	Ser	Tyr	Lys	Ser	Gln	Tyr	Leu	Asn	432
GCT	CCC	TTA	GTC	CTC	GCC	CCC	GAT	CAC	ACA	AGT	TAT	AAA	ACT	CAA	TAT	TTG	AAC	
Asn	Gly	Pro	Gln	Arg	Ile	Gly	Arg	Lys	Tyr	Lys	Lys	Val	Arg	Phe	Met	Ala	Tyr	450
AAT	GGC	CCT	CAG	CGG	ATT	GGT	AGG	AAC	TAC	AAA	AAA	GTC	CCA	TTT	ATC	GCA	TAC	
Thr	Asp	Glu	Thr	Phe	Lys	Thr	Arg	Glu	Ala	Ile	Gln	His	Glu	Ser	Gly	Ile	Leu	463
ACA	GAT	GAA	ACC	TTT	AAG	ACT	CGT	GAA	GCT	ATT	CAG	CAT	GAA	TCA	GCA	ATC	TTG	
Gly	Pro	Leu	Leu	Tyr	Gly	Glu	Val	Gly	Asp	Thr	Leu	Leu	Ile	Ile	Phe	Lys	Asn	486
GGA	CCT	TTA	CIT	TAT	GGC	GAA	GTT	GGA	GAC	ACA	CIG	TTC	ATT	ATA	TTT	AAC	AAT	
Glu	Ala	Ser	Arg	Pro	Tyr	Asn	Ile	Tyr	Pro	His	Gly	Ile	Thr	Asp	Val	Arg	Pro	504
CAA	GCA	AGC	AGA	CCA	TAT	AAC	ATC	TAC	CCT	CAC	GGA	ATC	ACT	GAT	GTC	CGT	CCT	
Leu	Tyr	Ser	Arg	Arg	Leu	Pro	Lys	Gly	Val	Lys	His	Leu	Lys	Asp	Phe	Pro	Ile	522
TTG	TAT	TCA	AGG	ACA	TTA	CCA	AAA	GCT	GTA	AAA	CAT	TTG	AAG	CAT	TTT	CCA	ATT	
Leu	Pro	Gly	Glu	Ile	Phe	Lys	Tyr	Lys	Trp	Thr	Val	Thr	Val	Glu	Asp	Gly	Pro	540
CTG	CCA	GGA	GAA	ATA	TTC	AAA	TAT	AAA	TGG	ACA	GTC	ACT	GTA	GAA	GAT	GGC	CCA	
Thr	Lys	Ser	Asp	Pro	Arg	Cys	Leu	Thr	Arg	Tyr	Tyr	Ser	Ser	Phe	Val	Asn	Met	558
ACT	AAA	TCA	GAT	CCT	CGG	TGC	CTG	ACC	CGC	TAT	TAC	TCT	AGT	TTC	GTT	AAT	ATG	
Glu	Arg	Asp	Leu	Ala	Ser	Gly	Leu	Ile	Gly	Pro	Leu	Leu	Ile	Cys	Tyr	Lys	Glu	576
GAG	ACA	GAT	CTA	GCT	TCA	GGA	CTC	ATT	GGC	CCT	CTC	CTC	ATC	TGC	TAC	AAA	GAA	
Ser	Val	Asp	Gln	Arg	Gly	Asn	Gln	Ile	Met	Ser	Asp	Lys	Arg	Asn	Val	Ile	Leu	594
TCT	GTA	GAT	CAA	AGA	GGA	AAC	CAG	ATA	ATG	TCA	GAC	AAG	AGG	AAT	GTC	ATC	CTG	
Phe	Ser	Val	Phe	Asp	Gln	Asn	Arg	Ser	Trp	Tyr	Leu	Thr	Glu	Asn	Ile	Gln	Arg	612
TTT	TCT	GTA	TTT	GAT	CAG	AAC	CGA	ACC	TGG	TAG	CTC	ACA	GAG	AAT	ATA	CAA	CCC	
Phe	Leu	Pro	Asn	Pro	Ala	Gly	Val	Gln	Leu	Glu	Asp	Pro	Glu	Phe	Gln	Ala	Ser	630
TTT	CTC	CCC	AAT	CCA	GCT	GGA	GTC	CAG	CTT	GAG	GAT	CCA	GAG	TTC	CAA	CCC	TCC	
Asn	Ile	Met	His	Ser	Ile	Asn	Gly	Tyr	Val	Phe	Asp	Ser	Leu	Gln	Leu	Ser	Val	648
AAC	ATC	ATC	CAC	ACC	ATC	AAT	CGC	TAT	CTT	TTT	GAT	ACT	TTC	CAG	TTC	TCA	GTT	

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Cys	Leu	His	Glu	Val	Ala	Tyr	Trp	Tyr	Ile	Leu	Ser	Ile	Gly	Ala	Gln	Thr	Asp	666
TGT	TTC	CAT	CAG	GTC	GCA	TAC	TGG	TAC	ATT	GTA	ACC	ATT	GGA	GCA	CAC	ACT	GAC	
Phe	Leu	Ser	Val	Phe	Phe	Ser	Gly	Tyr	Thr	Phe	Lys	His	Lys	Met	Val	Tyr	Glu	684
TTC	CTT	TCT	GTC	TTC	TTC	TCT	CGA	TAT	ACC	TTC	AAA	CAC	AAA	ATG	GTC	TAT	CAA	
Asp	Thr	Leu	Thr	Leu	Phe	Pro	Phe	Ser	Gly	Glu	Thr	Val	Phe	Met	Ser	Met	Glu	702
GAC	ACA	CTC	ACC	CTA	TTC	CCA	TTC	TCA	GGA	GAA	ACT	GTC	TTC	ATG	TCC	ATC	GAA	
Asn	Pro	Gly	Leu	Trp	Ile	Leu	Gly	Lys	His	Asn	Ser	Asp	Phe	Arg	Asn	Arg	Gly	720
AAC	CCA	CGT	CTA	TGG	ATT	CTG	GCG	TGC	CAC	AGC	TCA	GAC	TTT	CGG	AAC	AGA	CGC	
Met	Thr	Ala	Leu	Leu	Lys	Val	Ser	Ser	Cys	Asp	Lys	Asn	Thr	Gly	Asp	Tyr	Tyr	738
ATG	ATC	CCC	TTA	CTG	AAG	GTT	TCT	ACT	IGT	GAC	AAG	AAC	ACT	GGT	GAT	TAT	TAC	
Glu	Asp	Ser	Tyr	Glu	Asp	Ile	Ser	Ala	Tyr	Leu	Leu	Ser	Lys	Asn	Asn	Ala	Ile	756
CAG	GAC	AGT	TAT	GAA	GAT	ATF	TCA	GCA	TAC	TTC	CTG	ACT	AAA	AAC	AAT	CCC	ATT	
Glu	Pro	Arg	Ser	Phe	Ser	Gln	Asn	Ser	Arg	His	Pro	Ser	Thr	Arg	Gln	Lys	Gln	774
CAA	CCA	ACA	ACC	TTC	TCC	CAG	AAT	TCA	AGA	CAC	CCF	AGC	ACT	AGC	CAA	AAC	CAA	
Phe	Asn	Ala	Thr	Thr	Ile	Pro	Glu	Asn	Asp	Ile	Glu	Lys	Thr	Asp	Pro	Trp	Phe	792
TTT	AAT	CCC	AGC	ACA	ATT	CCA	GAA	AAT	GAC	ATA	CAG	AAG	ACT	GAC	CCT	TGG	TTT	
Ala	His	Arg	Thr	Pro	Met	Pro	Lys	Ile	Gln	Asn	Val	Ser	Ser	Ser	Asp	Leu	Leu	810
GCA	CAC	ACA	ACA	CCT	ATG	CCT	AAA	ATA	CAA	AAT	GTC	TCC	TCT	ACT	GAT	TTG	TTG	
Met	Leu	Leu	Arg	Gln	Ser	Pro	Thr	Pro	His	Gly	Leu	Ser	Leu	Ser	Asp	Leu	Gln	828
ATC	CTC	TTC	GCA	CAG	AGT	CCT	ACT	CCA	CAT	GGG	CTA	TCC	TTA	TCT	GAT	CTC	CAA	
Glu	Ala	Lys	Tyr	Glu	Thr	Phe	Ser	Asp	Asp	Pro	Ser	Pro	Gly	Ala	Ile	Asp	Ser	846
CAA	CCC	AAA	TAT	CAG	ACT	TTT	TCT	GAT	GAT	CCA	TCA	CCT	GGA	GCA	ATA	CAC	ACT	
Asn	Asn	Ser	Leu	Ser	Glu	Met	Thr	His	Phe	Arg	Pro	Gln	Leu	His	His	Ser	Gly	864
AAT	AAC	AGC	CTC	TCT	GAA	ATG	ACA	CAC	TTC	AGC	CCA	CAG	CTC	CAT	CAC	ACT	CGG	
Asp	Met	Val	Phe	Thr	Pro	Glu	Ser	Gly	Leu	Gln	Leu	Arg	Leu	Asn	Glu	Lys	Leu	882
GAC	ATC	GTA	TTT	ACC	CCT	GAG	TCA	GGC	CTC	CAA	TTA	AGA	TTA	AAT	GAG	AAA	CTC	
Gly	Thr	Thr	Ala	Ala	Thr	Glu	Leu	Lys	Lys	Leu	Asp	Phe	Lys	Val	Ser	Ser	Thr	900
GGG	ACA	ACT	GCA	GCA	ACA	GAG	TTC	AAG	AAA	CTT	GAT	TTC	AAA	GTT	TCT	ACT	ACA	
Ser	Asn	Asn	Leu	Ile	Ser	Thr	Ile	Pro	Ser	Asp	Asn	Leu	Ala	Ala	Gly	Thr	Asp	918
TCA	AAT	AAT	CTC	ATT	TCA	ACA	ATT	CCA	TCA	GAC	AAT	TTC	GCA	GCA	GGT	ACT	GAT	
Asn	Thr	Ser	Ser	Leu	Gly	Pro	Pro	Ser	Met	Pro	Val	His	Tyr	Asp	Ser	Gln	Leu	936
AAT	ACA	AGT	TCC	TTA	GGA	CCC	CCA	AGT	ATG	CCA	CTT	CAT	TAT	GAT	AGT	CAA	TTA	
Asp	Thr	Thr	Leu	Phe	Gly	Lys	Lys	Ser	Ser	Pro	Leu	Thr	Glu	Ser	Gly	Gly	Pro	954
	ACC	ACT	GTA	TTT	GGC	AAA	AAG	TCA	TCT	CCC	CTT	ACT	GAG	TCT	GGT	GGA	CCT	
Leu	Ser	Leu	Ser	Glu	Glu	Asn	Asn	Asp	Ser	Lys	Leu	Leu	Glu	Ser	Gly	Leu	Met	972
CTC	ACC	TTC	AGT	GAA	GAA	AAT	AAT	GAT	TCA	AAC	TTC	TTA	GAA	TCA	GGT	TTA	ATC	
Asn	Ser	Gln	Glu	Ser	Ser	Trp	Gly	Lys	Asn	Val	Ser	Ser	Thr	Glu	Ser	Gly	Arg	990
AAT	ACC	CAA	CAA	AGT	TCA	TGG	GGA	AAA	AAT	GTA	TGG	TCA	ACA	GAG	AGT	GGT	AGG	

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Leu	Phe	Lys	Gly	Lys	Arg	Ala	His	Gly	Pro	Ala	Leu	Leu	Thr	Lys	Asp	Asn	Ala	1,001
TTA	TFT	AAA	GGG	AAA	ACA	GCT	GAT	GGA	GCT	GCT	TTC	TTC	ACT	AAA	GAT	AAT	CCC	
Leu	Phe	Lys	Val	Ser	Ile	Ser	Leu	Leu	Lys	Thr	Asn	Lys	Thr	Ser	Asn	Asn	Ser	1,021
TTA	TTC	AAA	GTT	ACC	ATC	TCT	TTG	TTC	AAG	ACA	AAC	AAA	ACT	TCC	AAT	AAT	TCA	
Ala	Thr	Asn	Arg	Lys	Thr	His	Ile	Asp	Gly	Pro	Ser	Leu	Leu	Ile	Glu	Asn	Ser	1,044
GCA	ACT	AAT	AGA	AAG	ACT	CAC	ATT	ASP	GCC	CCA	TCA	TTA	TTA	ATT	CAG	AAT	AGT	
Pro	Ser	Val	Trp	Gln	Asn	Ile	Leu	Glu	Ser	Asp	Thr	Glu	Phe	Lys	Lys	Val	Thr	1,062
CCA	TCA	GTC	TGG	CAA	AAT	ATA	TTA	GAA	AGT	CAC	ACT	GAG	TTT	AAA	AAA	GTC	ACA	
Pro	Leu	Ile	His	Asp	Arg	MET	Leu	MET	Asp	Lys	Asn	Ala	Thr	Ala	Leu	Arg	Leu	1,080
GCT	TTC	ATT	CAT	GAC	AGA	ATG	CTT	ATG	CAC	AAA	AAT	GCT	ACA	GCT	TTG	AGC	CTA	
Asn	His	MET	Ser	Asn	Lys	Thr	Thr	Ser	Ser	Lys	Asn	MET	Glu	MET	Val	Gln	Gln	1,098
AAT	CAT	ATG	TCA	AAT	AAA	ACT	ACT	TCA	TCA	AAA	ACC	ATG	GAA	ATC	GTC	CAA	CAG	
Lys	Lys	Glu	Gly	Pro	Ile	Pro	Pro	Asp	Ala	Gln	Asn	Pro	Asp	MET	Ser	Phe	Phe	1,116
AAA	AAA	GAG	GGC	CCC	ATT	CCA	CCA	GAT	GCA	CAA	AAT	CCA	GAT	ATG	TGG	TTC	TTT	
Lys	MET	Leu	Phe	Leu	Pro	Glu	Ser	Ala	Arg	Trp	Ile	Gln	Arg	Thr	His	Gly	Lys	1,134
AAG	ATG	CTA	TTC	TTC	CCA	GAA	TCA	GCA	AGG	TGG	ATA	CAA	AGG	ACT	CAT	CGA	AAG	
Asn	Ser	Leu	Asn	Ser	Gly	Gln	Gly	Pro	Ser	Pro	Lys	Gln	Leu	Val	Ser	Leu	Gly	1,152
AAC	TCT	CTG	AAC	TCT	GGC	CAA	GGC	CCC	ACT	CCA	AAG	CAA	TTA	GTA	TCC	TTA	CCA	
Pro	Glu	Lys	Ser	Val	Glu	Gly	Gln	Asn	Phe	Leu	Ser	Glu	Lys	Asn	Lys	Val	Val	1,170
CCA	GAA	AAA	TCT	GTC	GAA	GCT	CAG	AAT	TTC	TTC	TCI	GAG	AAA	AAC	AAA	GTC	GTA	
Val	Gly	Lys	Gly	Glu	Phe	Thr	Lys	Asp	Val	Gly	Leu	Lys	Glu	MET	Val	Phe	Pro	1,188
GTA	GGA	AAG	GGT	GAA	TTT	ACA	AAG	CAC	GTA	GCA	CTC	AAA	CAG	ATC	GTT	TTT	CCA	
Ser	Ser	Arg	Asn	Leu	Phe	Leu	Thr	Asn	Leu	Asp	Asn	Leu	His	Glu	Asn	Asn	Thr	1,206
AGC	AGC	AGA	AAC	CTA	TTT	CTT	ACT	AAC	TTG	CAT	AAT	TTA	CAT	GAA	AAT	AAT	ACA	
His	Asn	Gln	Glu	Lys	Lys	Ile	Gln	Glu	Glu	Ile	Glu	Lys	Lys	Glu	Thr	Leu	Ile	1,224
CAC	AAT	CAA	GAA	AAA	AAA	ATT	CAG	CAA	CAA	ATA	CAA	AAG	AAG	GAA	ACA	TTA	ATC	
Gln	Glu	Asn	Val	Val	Leu	Pro	Gln	Ile	His	Thr	Val	Thr	Gly	Thr	Lys	Asn	Phe	1,242
CAA	CAG	AAT	GTA	GTT	TTG	GCT	CAG	ATA	CAT	ACA	CTG	ACT	GCC	ACT	AAG	AAT	TTC	
MET	Lys	Asn	Leu	Phe	Leu	Leu	Ser	Thr	Arg	Gln	Asn	Val	Glu	Gly	Ser	Tyr	Glu	1,260
ATG	AAC	AAC	CTT	TTC	TAA	CTG	ACC	ACT	AGG	CAA	AAT	GTA	CAA	GCT	TCA	TAT	CAC	
Gly	Ala	Tyr	Ala	Pro	Val	Leu	Gln	Asp	Phe	Arg	Ser	Leu	Asn	Asp	Ser	Thr	Asn	1,278
GCG	GCA	TAT	GCT	CCA	GTA	CIT	CAA	GAT	TTT	AGG	TCA	TTA	AAT	CAT	TCA	ACA	AAT	
Arg	Thr	Lys	Lys	His	Thr	Ala	His	Phe	Ser	Lys	Lys	Gly	Glu	Glu	Glu	Asn	Leu	1,296
	ACA	AAG	AAA	CAC	ACA	GCT	CAT	TTC	TCA	AAA	AAA	GCG	CAG	GAA	CAA	AAC	TTC	
Glu	Gly	Leu	Gly	Asn	Gln	Thr	Lys	Gln	Ile	Val	Glu	Lys	Tyr	Ala	Cys	Thr	Thr	1,314
CAA	GCC	TTG	GCA	AAT	CAA	ACC	AAG	CAA	ATT	GTA	CAG	AAA	TAT	GCA	TGC	ACC	ACA	
Arg	Ile	Ser	Pro	Asn	Thy	Ser	Gln	Gln	Asn	Phe	Val	Thr	Gln	Arg	Ser	Lys	Arg	1,332
AGG	ATA	TCT	GCT	AAT	ACA	AGC	CAG	CAG	AAT	TTT	CTC	AGC	CAA	CCT	ACT	AAG	AGA	

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Ala	Leu	Lys	Gln	Phe	Arg	Leu	Pro	Leu	Glu	Glu	Thr	Gln	Leu	Glu	Lys	Arg	Ile	1,350
GCT	TTC	AAA	CAA	TTC	ACA	CTC	CCA	CTA	CAA	CAA	ACA	CAA	CTT	GAA	AAA	AGC	ATA	
Ile	Val	Asp	Asp	Thr	Ser	Thr	Gln	Trp	Ser	Lys	Asn	Met	Lys	His	Leu	Thr	Pro	1,368
ATT	GTG	GAT	GAC	ACC	TCA	ACC	CAG	TGG	TCC	AAA	AAC	ATG	AAA	CAT	TTC	ACC	CCG	
Ser	Thr	Leu	Thr	Gln	Ile	Asp	Tyr	Asn	Glu	Lys	Glu	Lys	Gly	Ala	Ile	Thr	Gln	1,386
ACC	ACC	CTC	ACA	CAG	ATA	GAC	TAC	AAT	GAG	AAG	GAC	AAA	GGG	GCC	ATT	ACT	CAG	
Ser	Pro	Leu	Ser	Asp	Cys	Leu	Thr	Arg	Ser	His	Ser	Ile	Pro	Gln	Ala	Asn	Arg	1,404
TCT	CCC	TTA	TCA	GAT	TGC	CTT	ACG	AGG	ACT	CAT	AGC	ATC	CCT	CAA	GCA	AAT	AGA	
Ser	Pro	Leu	Pro	Ile	Ala	Lys	Val	Ser	Ser	Phe	Pro	Ser	Ile	Arg	Pro	Ile	Tyr	1,422
TCT	CCA	TTA	CCC	ATT	GCA	AAG	GTA	TCA	TCA	TIT	CCA	TCT	ATT	ACA	CCT	ATA	TAT	
Leu	Thr	Arg	Val	Leu	Phe	Gln	Asp	Asn	Ser	Ser	His	Leu	Pro	Ala	Ala	Ser	Tyr	1,440
CTG	ACC	AGG	CTC	CTA	TTC	CAA	GAC	AAC	TCT	TCT	CAT	CTT	CCA	GCA	GCA	TCT	TAT	
Arg	Lys	Lys	Asp	Ser	Gly	Val	Gln	Glu	Ser	Ser	His	Phe	Leu	Gln	Gly	Ala	Lys	1,458
ACA	AAG	AAA	GAT	TCT	GGG	GTC	CAA	GAA	AGC	ACT	CAT	TTC	TTA	CAA	GGG	CCC	AAA	
Lys	Asn	Asn	Leu	Ser	Leu	Ala	Ile	Leu	Thr	Leu	Glu	Met	Thr	Gly	Asp	Gln	Arg	1,476
AAA	AAT	AAC	CTT	TCT	TTA	GGC	ATT	CTA	ACC	TTC	CAG	ATG	ACT	GGT	GAT	CAA	AGA	
Glu	Val	Gly	Ser	Leu	Gly	Thr	Ser	Ala	Thr	Asn	Ser	Val	Thr	Tyr	Lys	Lys	Val	1,494
GAG	GTT	GGC	TCC	CTG	GGG	ACA	AGT	GGC	ACA	AAT	TCA	CTC	ACA	TAC	AAC	AAA	GTT	
Glu	Asn	Thr	Val	Leu	Pro	Lys	Pro	Asp	Leu	Pro	Lys	Thr	Ser	Gly	Lys	Val	Glu	1,512
CAG	AAC	ACT	GTT	CTC	CCG	AAA	CCA	GAC	TTC	CCC	AAA	ACA	TCT	GGC	AAA	GTT	GAA	
Leu	Leu	Pro	Lys	Val	His	Ile	Tyr	Gln	Lys	Asp	Leu	Phe	Pro	Thr	Glu	Thr	Ser	1,530
TTC	CTT	CCA	AAA	GTT	CAC	ATT	TAT	CAG	AAG	CAC	CTA	TTC	CCT	AGG	GAA	ACT	ACC	
Asn	Gly	Ser	Pro	Gly	His	Leu	Asp	Leu	Val	Glu	Gly	Ser	Leu	Leu	Gln	Gly	Thr	1,548
AAT	GGG	TCT	CCT	GGC	CAT	CTC	GAT	CTC	GTC	GAA	GGG	AGC	CTT	GTT	CAG	GCA	ACA	
Glu	Gly	Ala	Ile	Lys	Trp	Asn	Glu	Ala	Asn	Arg	Pro	Gly	Lys	Val	Pro	Phe	Leu	1,566
GAG	CGA	CCG	ATT	AAG	TGG	AAT	GAA	CCA	AAC	ACA	CCT	CCA	AAA	GTT	CCC	TIT	CTG	
Arg	Val	Ala	Thr	Glu	Ser	Ser	Ala	Lys	Thr	Pro	Ser	Lys	Leu	Leu	Asp	Pro	Leu	1,584
ACA	GTA	GCA	ACA	GAA	AGC	TCT	GCA	AAG	ACT	CCC	TCC	AAG	CTA	TTC	GAT	CCT	CTT	
Ala	Trp	Asp	Asn	His	Tyr	Gly	Thr	Gln	Ile	Pro	Lys	Glu	Glu	Trp	Lys	Ser	Gln	1,602
GCT	TGG	GAT	AAC	CAC	TAT	GGT	ACT	CAG	ATA	CCA	AAA	CAA	GAG	TGG	AAA	TCC	CAA	
Glu	Lys	Ser	Pro	Glu	Lys	Thr	Ala	Phe	Lys	Lys	Lys	Asp	Thr	Ile	Leu	Ser	Leu	1,520
GAG	AAG	TCA	CCA	CAA	AAA	ACA	GCT	TTT	AAG	AAA	AAG	GAT	ACC	ATT	TTC	TCC	CTG	
Asn	Ala	Cys	Glu	Ser	Asn	His	Ala	Ile	Ala	Ala	Ile	Asn	Glu	Gly	Gln	Asn	Lys	1,638
AAC	GCT	TGT	GAA	AGC	AAT	CAT	GCA	ATA	GCA	GCA	ATA	AAT	CAG	GGA	CAA	AAT	AAG	
Pro	Glu	Ile	Glu	Val	Thr	Trp	Ala	Lys	Gln	Gly	Arg	Thr	Glu	Arg	Leu	Cys	Ser	1,656
CCC	GAA	ATA	GAA	GTC	ACC	TGG	GCA	AAG	CAA	GCT	AGG	ACT	GAA	AGG	CTC	TCC	TCT	
Gln	Asn	Pro	Pro	Val	Leu	Lys	Arg	His	Gln	Arg	Glu	Ile	Thr	Arg	Thr	Thr	Leu	1,674
AAA	AAC	CCA	CCA	GTC	TTC	AAA	GGC	CAT	CAA	GGG	GAA	ATA	ACT	CGT	ACT	ACT	CTT	

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Gln	Ser	Asp	Gln	Glu	Glu	Ile	Asp	Tyr	Asp	Asp	Thr	Ile	Ser	Val	Glu	Met	Lys	1,692
CAG	TCA	GAT	CAA	GAG	GAA	ATT	GAC	TAT	GAT	GAT	ACC	ATA	TCA	GTT	CAA	ATG	AAG	
Lys	Glu	Asp	Phe	Asp	Ile	Tyr	Asp	Glu	Asp	Glu	Asn	Gln	Ser	Pro	Arg	Ser	Phe	1,710
AAC	GAA	GAT	TTT	GAC	ATT	TAT	CAT	GAG	GAT	GAA	AAT	CAG	ACC	CCC	CGC	AGC	TTT	
Gln	Lys	Lys	Thr	Arg	His	Tyr	Phe	Ile	Ala	Val	Glu	Arg	Leu	Trp	Asp	Tyr		1,728
CAA	AAG	AAA	ACA	CGA	CAC	TAT	TIT	ATT	GCT	GCA	GTG	GAC	AGC	CTC	TGC	CAT	TAT	
Gly	Met	Ser	Ser	Ser	Pro	His	Val	Leu	Arg	Asn	Arg	Ala	Gln	Ser	Gly	Ser	Val	1,746
GGG	ATG	AGT	AGC	TCC	CCA	CAT	GTT	CTA	ACA	AAC	AGG	CGT	CAG	AGT	CGC	AGT	CTC	
Pro	Gln	Phe	Lys	Lys	Val	Val	Phe	Gln	Glu	Phe	Thr	Asp	Gly	Ser	Phe	Thr	Gln	1,764
CCT	CAG	TTC	AAG	AAA	GTT	GTT	TTC	CAG	CAA	TTT	ACT	GAT	CCC	TCC	TTT	ACT	CAG	
Pro	Leu	Tyr	Arg	Gly	Glu	Leu	Asn	Glu	His	Leu	Gly	Leu	Leu	Gly	Pro	Tyr	Ile	1,782
CCC	TTA	TAC	CGT	GGA	GAA	CTA	AAT	CAA	CAT	TTG	GCA	CTC	CTC	GGG	CCA	TAT	ATA	
Arg	Ala	Glu	Val	Glu	Asp	Asn	Ile	Met	Val	Thr	Phe	Arg	Asn	Gln	Ala	Ser	Arg	1,800
ACA	GCA	CAA	GTT	GAA	GAT	AAT	ATC	ATG	GTA	ACT	TTC	AGA	AAT	CAG	CCC	TCT	CGT	
Pro	Tyr	Ser	Phe	Tyr	Ser	Ser	Leu	Ile	Ser	Tyr	Glu	Glu	Asp	Gln	Arg	Gln	Gly	1,818
CCC	TAT	TCC	TTC	TAT	TCT	AGC	GTT	ATT	TCT	TAT	CAG	GAA	GAT	CAG	ACG	CAA	GGA	
Ala	Glu	Pro	Arg	Lys	Asn	Phe	Val	Lys	Pro	Asn	Glu	Thr	Lys	Thr	Tyr	Phe	Trp	1,836
GCA	GAA	CCT	ACA	AAA	AAC	TTT	GTC	AAG	CCT	AAT	CAA	ACC	AAA	ACT	TAC	TTT	TGG	
Lys	Val	Gln	His	His	Met	Ala	Pro	Thr	Lys	Asp	Glu	Phe	Asp	Cys	Lys	Ala	Trp	1,854
AAA	GTC	CAA	CAT	CAT	ATG	GCA	CCC	ACT	AAA	GAT	GAG	TTT	GAC	TCC	AAA	GCC	TGG	
Ala	Tyr	Phe	Ser	Asp	Val	Asp	Leu	Glu	Lys	Asp	Val	His	Ser	Gly	Leu	Ile	Gly	1,872
GCT	TAT	TTC	TCT	GAT	GTT	GAC	CTG	CAA	AAA	GAT	CTG	CAC	TCA	GCC	CTG	ATT	GGA	
Pro	Leu	Leu	Val	Cys	His	Thr	Asn	Thr	Leu	Asn	Pro	Ala	His	Gly	Arg	Gln	Val	1,890
CCC	CTT	CTG	CTC	TGC	CAC	ACT	AAC	ACA	CTG	AAC	CCT	GCT	CAT	CGC	ACA	CAA	GTC	
Thr	Val	Gln	Glu	Phe	Ala	Leu	Phe	Phe	Thr	Ile	Phe	Asp	Glu	Thr	Lys	Ser	Trp	1,908
ACA	GTA	CAG	GAA	TTT	GCT	CTG	TTT	TTC	ACC	ATC	TTT	GAT	CAG	ACC	AAA	AGC	TGG	
Thy	Phe	Thr	Glu	Asn	Met	Glu	Arg	Asn	Cys	Arg	Ala	Pro	Cys	Asn	Ile	Gln	Met	1,926
TAC	TTC	ACT	CAA	AAT	ATG	CAA	ACA	AAC	TGC	AGG	GCT	CCC	TGC	AAT	ATC	CAG	ATG	
Glu	Asp	Pro	Thr	Phe	Lys	Glu	Asn	Thr	Arg	Phe	His	Ala	Ile	Asn	Gly	Tyr	Ile	1,944
GAA	GAT	CCC	ACT	TTT	AAA	CAG	AAT	TAT	CGC	TTC	CAT	GCA	ATC	AAT	GGC	TAC	ATA	
Met	Asp	Thr	Leu	Pro	Gly	Leu	Val	Met	Ala	Gln	Asp	Gln	Arg	Ile	Arg	Trp	Tyr	1,962
ATG	GAT	ACA	CTA	CCT	GGC	TTA	GTA	ATG	GCT	CAG	GAT	CAA	AGG	ATT	CGA	TGC	TAT	
Leu	Leu	Ser	Met	Gly	Ser	Asn	Glu	Asn	Ile	His	Ser	Ile	His	Phe	Ser	Gly	His	1,980
CTG	CTC	ACC	ATC	GGC	ACC	AAT	GAA	AAC	ATC	CAT	TCT	ATT	GAT	TTC	AGT	GGA	CAT	
Val	Phe	Thr	Val	Arg	Lys	Lys	Glu	Glu	Tyr	Lys	Met	Ala	Leu	Tyr	Asn	Leu	Tyr	1,998
GTC	TTC	ACT	GTA	GCA	AAA	AAA	CAG	CAG	TAT	AAA	ATG	GCA	CTG	TAC	AAT	CTC	TAT	
Pro	Gly	Val	Phe	Glu	Thr	Val	Glu	Met	Leu	Pro	Ser	Lys	Ala	Gly	Ile	Trp	Arg	2,016
CCA	GCT	GTT	TTT	GAC	ACA	GTC	GAA	ATG	TTA	CCA	TGC	AAA	GCT	GCA	ATT	TGG	CGG	

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Val	Glu	Cys	Leu	Ile	Gly	Gln	His	Leu	His	Ala	Gly	Met	Ser	Thr	Leu	Phe	Leu	2,034
CTG	GAA	TCC	CTT	ATT	GGC	GAG	CAT	CTA	CAT	GCT	GGG	ATG	AGC	ACA	CTT	TTT	CTG	
Val	Tyr	Ser	Asn	Lys	Cys	Gln	Thr	Pro	Leu	Gly	Met	Ala	Ser	Gly	His	Ile	Arg	2,052
GTG	TAC	ACC	AAT	AAC	TGT	CAG	ACT	CCC	CTG	GGA	ATG	GCT	TCT	GCA	CAC	ATT	AGA	
Asp	Phe	Gln	Ile	Thr	Ala	Ser	Gly	Gln	Tyr	Gly	Gln	Trp	Ala	Pro	Lys	Leu	Ala	2,070
GAT	TTT	CAG	ATT	ACA	GCT	TCA	GCA	CAA	TAT	GGA	CAG	TGG	GCC	CCA	AAG	CTG	GCC	
Arg	Leu	His	Tyr	Ser	Gly	Ser	Ile	Asn	Ala	Trp	Ser	Thr	Lys	Glu	Pro	Phe	Ser	2,088
AGA	CTT	CAT	TAT	TCC	GGA	TCA	ATC	AAT	GCC	TGG	ACC	ACC	AAG	GAG	CCC	TTT	TCT	
Trp	Ile	Lys	Val	Asp	Leu	Leu	Ala	Pro	Met	Ile	Ile	His	Gly	Ile	Lys	Thr	Gln	2,106
TGG	ATC	AAG	GTG	GAT	CTG	TTC	GCA	CCA	ATG	ATT	ATT	CAC	CCC	ATC	AAG	ACC	CAC	
Gly	Ala	Arg	Gln	Lys	Phe	Ser	Ser	Leu	Tyr	Ile	Ser	Gln	Phe	Ile	Ile	Met	Tyr	2,124
GCT	CCC	GCT	CAG	AAG	TTC	TCC	AGC	CTC	TAC	ATC	TCT	CAG	TTT	ATC	ATC	ATG	TAT	
Ser	Leu	Asp	Gly	Lys	Lys	Trp	Gln	Thr	Tyr	Arg	Gly	Asn	Ser	Thr	Gly	Thr	Leu	2,142
AGT	CTT	CAT	GGG	AAC	AAC	TGG	CAG	ACT	TAT	CCA	GGA	AAT	TCC	ACT	GGA	ACC	TTA	
Met	Val	Phe	Phe	Gly	Asn	Val	Asp	Ser	Ser	Gly	Ile	Lys	His	Asn	Ile	Phe	Asn	2,160
ATG	CTC	TTC	TTT	GGC	AAT	GTG	GAT	TCA	TCT	CGG	ATA	AAA	CAC	AAT	ATT	TTT	AAC	
Pro	Pro	Ile	Ile	Ala	Arg	Tyr	Ile	Arg	Leu	His	Pro	Thr	His	Tyr	Ser	Ile	Arg	2,178
CCT	CCA	ATT	GCT	CGA	TAC	ATC	CGT	TTC	CTC	CAC	CCA	ACT	CAT	TAT	ACC	ATT	CGC	
Ser	Thr	Leu	Arg	Met	Glu	Leu	Met	Gly	Cys	Asp	Leu	Asn	Ser	Cys	Ser	Met	Pro	2,196
AGC	ACT	CTT	CGC	ATG	CAG	TTC	ATG	CGC	TGT	CAT	TTA	AAT	AGT	TGC	ACC	ATG	CCA	
Leu	Gly	Met	Glu	Ser	Lys	Ala	Ile	Ser	Asp	Ala	Gln	Ile	Thr	Ala	Ser	Ser	Tyr	2,214
TTC	GGA	ATG	GAG	ACT	AAA	GCA	ATA	TCA	GAT	GCA	CAG	ATT	ACT	GCT	TCA	TCC	TAC	
Phe	Thr	Asn	Met	Phe	Ala	Thr	Trp	Ser	Pro	Ser	Lys	Ala	Arg	Leu	His	Leu	Gln	2,232
TTT	ACC	AAT	ATG	TTT	GCC	ACC	TGG	TCT	CCT	TCA	AAA	GCT	CGA	CTT	CAC	CTC	CAA	
Gly	Arg	Ser	Asn	Ala	Trp	Arg	Pro	Gln	Val	Asn	Asn	Pro	Lys	Glu	Trp	Leu	Gln	2,250
GGG	ACG	AGT	AAT	CCC	TGG	AGA	CCT	CAG	GTG	AAT	AAT	CCA	AAA	GAG	TGG	CTG	CAA	
Val	Asp	Phe	Gln	Lys	Thr	Met	Lys	Val	Thr	Gly	Val	Thr	Thr	Gln	Gly	Val	Lys	2,268
CTG	CAC	TTC	CAG	AAG	ACA	ATG	AAA	CTC	ACA	GGA	GTA	ACT	ACT	CAG	GGA	GTA	AAA	
Ser	Leu	Leu	Thr	Ser	Met	Tyr	Val	Lys	Glu	Phe	Leu	Ile	Ser	Ser	Ser	Gln	Asp	2,286
TCT	CTC	CTT	ACC	ACC	ATG	TAT	GTG	AAG	CAG	TAC	CTC	ATC	TCC	ACC	ACT	CAA	CAT	
Gly	His	Gln	Trp	Thr	Leu	Phe	Phe	Gln	Asn	Gly	Lys	Val	Lys	Val	Phe	Gln	Gly	2,304
GGC	CAT	CAG	TGG	ACT	CTC	TTT	TIT	CAG	AAT	GCG	AAA	GTA	AAG	GTT	TTT	CAG	GGA	
Asn	Gln	Asp	Ser	Phe	Thr	Pro	Val	Val	Asn	Ser	Leu	Asp	Pro	Pro	Leu	Leu	Thr	2,322
AAT	CAA	GAC	TCC	TTC	ACA	CCT	GTG	CTG	AAC	TCT	CTA	GAC	CCA	CCG	TTA	CTG	ACT	
Arg	Tyr	Leu	Arg	Ile	His	Pro	Gln	Ser	Trp	Val	His	Gln	Ile	Ala	Leu	Arg	Met	2,340
CGC	TAC	CTT	CGA	ATT	CAC	CCC	CAG	AGT	TGG	CTG	CAC	CAG	ATT	CCC	CTG	AGG	ATG	

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